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ESTIMATES OF THE POPULATION OF VIRGINIA COUNTIES AND CITIES 1985 AND 1986

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POPULATION CHANGE IN VIRGINIA, 1980-86

This publication contains 1980 Census counts, final 1981-85 population estimates, and provisional 1986 estimates for each county and independent city in Virginia. They were developed in cooperation with the United States Bureau of the Census, under the auspices of the Federal-State Cooperative Program for Population Estimates.

The latest estimates indicate that as of 1986, nearly two-thirds through the current decade, growth patterns quite different from those of the 1970s have become well established. These patterns and some of the interesting ways in which Virginia's population is changing include:

- The most recent estimates indicate that the population of Virginia is currently 5,787,100. This represents a gain of 440,300 persons, or 8.2 percent, since 1980.

- Average annual growth during the 1980s is increasing. Between 1980 and 1985, average annual increase was 1.2 percent, compared to 1.4 percent during the 1970s. By 1986, average annual growth during the decade had risen to 1.3 percent.

- Since the 1950s, the mechanisms of population growth in Virginia have changed dramatically. Natural increase now accounts for about 54 percent of the population increase. During the decade of the 1950s, natural increase accounted for almost 98 percent of all growth.

- However, by 1986, the share of population growth contributed by natural increase was larger than it was the year before, when natural increase and net migration each accounted for roughly half of the state's population growth.

- Within the state, population growth is highly concentrated. Eighty-two percent of the state's 1980-86 growth has taken place in only 26 of its localities.

- Although these 26 high-growth localities account for nearly 82 percent of the state's population gain, they contain only 16 percent of the state's total land area.

- Since 1980, metropolitan localities have grown at three and a half times the rate of nonmetropolitan areas and have added over eight times the population added by nonmetropolitan areas. This reverses a trend of the 1970s, when nonmetropolitan areas grew at a slightly faster rate than metropolitan areas.

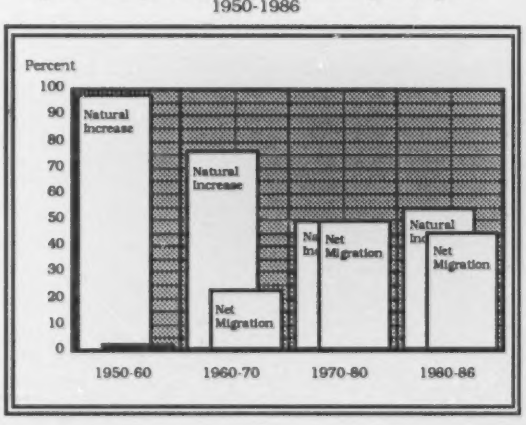
- County and city growth trends are also changing. During the 1980s, the rate at which cities are growing is much closer to the county rate than it was during the 1970s, when counties grew at 11 times the rate of cities.

- An important reason for this shift is net migration. Between 1970 and 1980, cities experienced a net outmigration of population. Since 1980, cities have had net inmigration of population.

Mechanisms of Change

Population change can result from either or both of two mechanisms: natural increase

Figure 1. Components of Population Change in Virginia, 1950-1986



and net migration. Natural increase is the difference between the number of births and deaths occurring in the area; net migration is the difference between the number of people who moved in and the number of people who moved out. Both can be either positive or negative.

Figure 1 shows that over the past several decades the relative influence of natural increase and net migration on Virginia's population has changed. Between 1950 and 1980, the contribution of natural increase to the state's total population growth declined steadily, from 98 percent during the 1950s to 77 percent during the 1960s to 50 percent during the 1970s. During the first six and a half years of the 1980s, however, natural increase has again become the major growth mechanism in the state. This trend is due not to increased fertility rates but to an increase in the number of women in the child-bearing years. While families continue to be smaller than those of previous decades, and the number of childless couples larger, women born during the baby boom are now becoming mothers, producing a "baby boomlet" of their own.

The second mechanism of population change is migration. Figure 2 shows the pattern of population change in Virginia, and Figure 3 shows the pattern of net migration. Comparing the two shows that the pattern of net migration in Virginia is similar to, but not identical with, the pattern of population change. Although most areas which lost population had negative net migration—the largest group of such localities is in Southside Virginia—a number of localities with modest 1980-86 population gains nonetheless had negative migration rates. In these areas, natural increase was sufficient to offset the losses resulting from outmigration.

Although several cities, including Alexandria, Hampton, and Norfolk, exhibited this pattern, most of the localities that gained population overall but had negative net migration rates were rural counties. One group of such counties is located around Richmond, and includes Amelia, Prince George, and Powhatan counties, as well as the independent cities of Colonial Heights and Hopewell. A second group of localities experiencing both growth and outmigration is located in southwest Virginia and includes the four counties of Carroll, Russell, Wise, and Wythe.

Birth rates, death rates, and migration rates are influenced by many factors, including economic trends, lifestyle preferences, and local conditions. Moreover, each of these factors interacts with the others. For example, growth in Northern Virginia has a great deal to do with its proximity to Washington, D.C. and the jobs and amenities it provides. Consequently net migration accounts for over half of the total estimated growth in this area since 1980. The Norfolk MSA, where defense-related industry is important, shows a similar pattern. On the other hand, the major source of employment in southwestern Virginia, mining, has had a mixed picture since 1980. And although the area has grown, it has done so largely as a result of natural increase rather than net inmigration. Similarly, Albemarle County and Montgomery County both experienced considerable growth during the 1970s as a result of the expansion of the universities located within their boundaries. During this period, a majority of the growth resulted from net inmigration. Between 1980 and 1986, however, expansion of both universities slowed considerably. As a result, the relative importance of the growth mechanisms in these areas has changed. In both Albemarle and Montgomery, inmigration has slowed and natural increase has become the major mechanism of population growth.

Both economic and personal preference factors have played a part in suburbanization, a growth-producing trend that has been historically important in Virginia—as it has in the nation as a whole—and which continues to be important in the 1980s. During its initial stages following World War II, suburbanization was largely a matter of preferred residence. Given the opportunity, people who worked in the city or migrated there in search of jobs chose to live in an environment they considered more conducive to family life, a preference encouraged by the availability of relatively inexpensive single-family housing. Since that time, however, the nature of suburbanization has changed. Business and industry have moved into what were formerly bedroom communities, and in some places inter- and intra-suburban commuting has become as common as suburb-central city commuting. This development fosters not only

Figure 2. Population Change in Virginia Localities, 1980–86

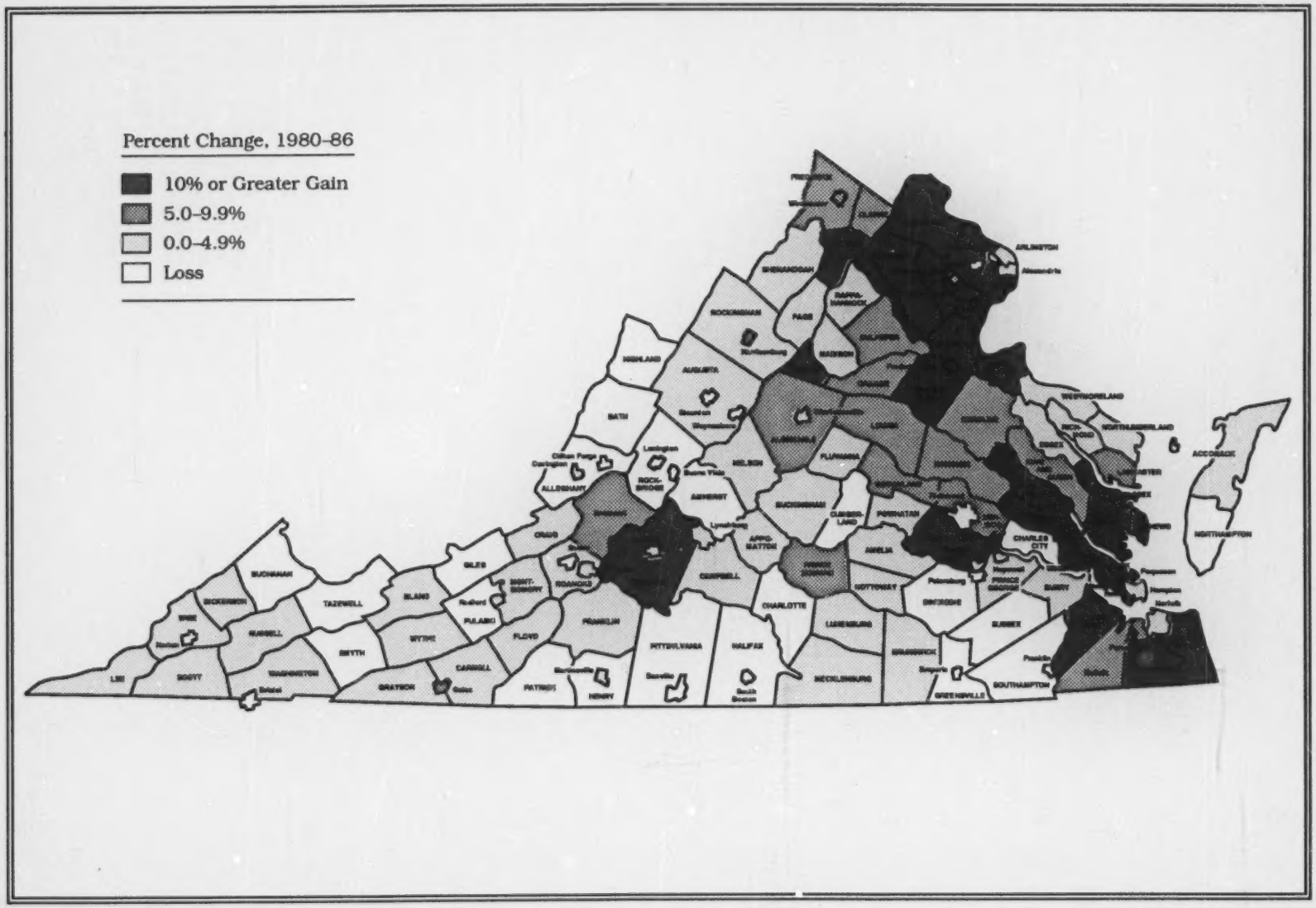
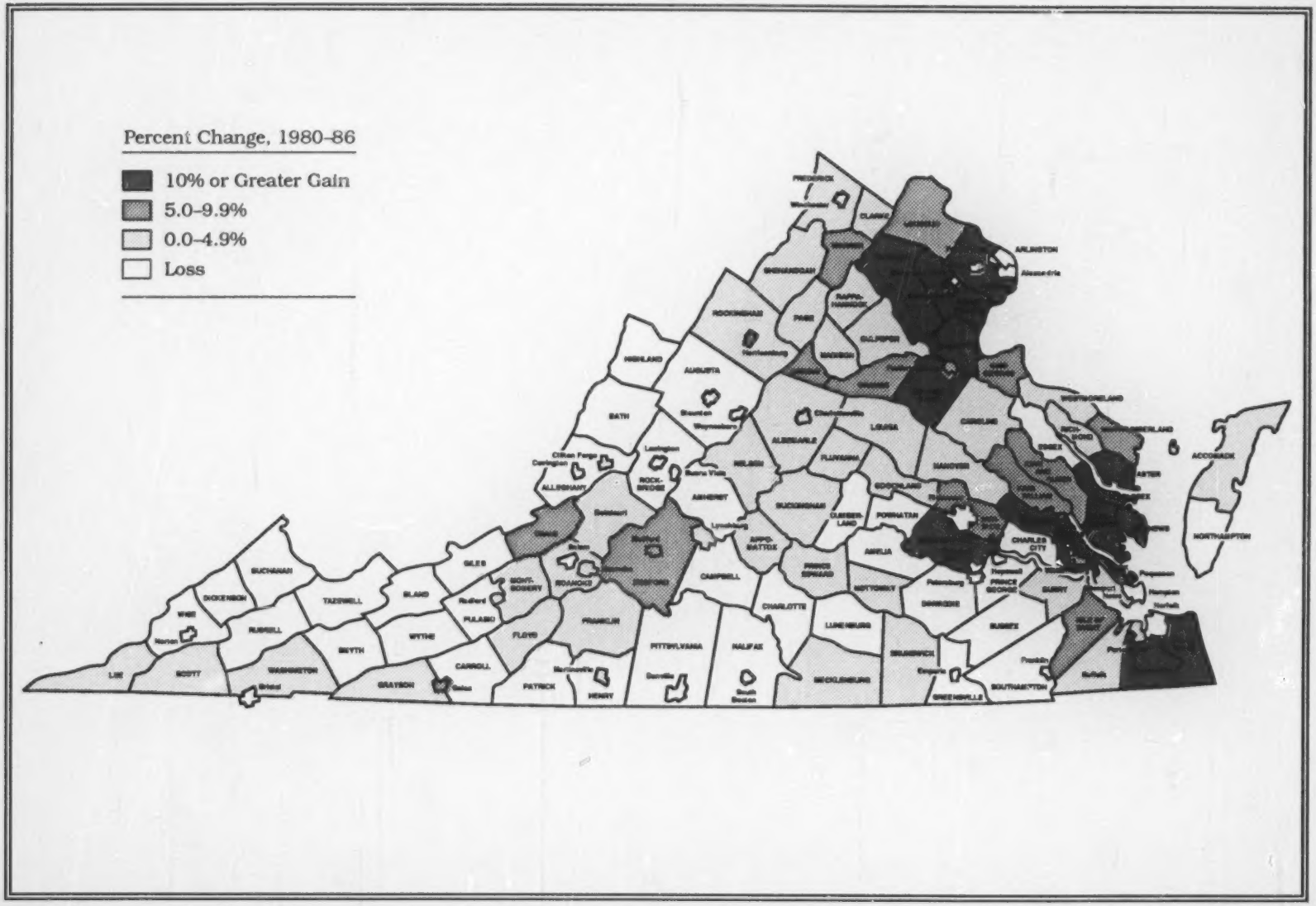


Figure 3. Net Migration in Virginia Localities, 1980–86



growth within suburbs but also the suburbanization of formerly rural localities, a change typified by the addition of Stafford County to the Washington, D.C. metropolitan area in 1983. In Figure 2, suburban growth is particularly noticeable in Bedford, Craig, and Mathews counties, none of which is currently part of an MSA but all of which are adjacent to one or more such areas.

Population growth can also be a sudden, one-time occurrence. An example is the opening of a single large institution. In recent years, the Virginia Department of Corrections opened two large facilities, one in Brunswick County and the other in Nottoway County. The result was a large population increase resulting from the addition of the residents of the institutions and new employment associated with the facilities. The opposite is also true. The Department of Corrections closed two facilities in 1984 and 1985, both located in Powhatan County. Although the county had been showing some population gain, the closings had a stabilizing effect on the county's population size.

In summary, the reasons for population gains and losses are varied. Economic and social factors may combine to produce long-term trends like suburbanization that change the face of an entire nation, or change may be idiosyncratic, taking place suddenly and for reasons not likely to be repeated. Cultural factors may make populations slow to respond to local economic change, producing high unemployment rates when people prefer to remain in familiar surroundings despite the decline of local industry. Or change may be rapid as others flock to take advantage of new opportunities. All of these mechanisms—and others—have played a part in producing today's pattern of population distribution in Virginia and will continue to do so in the future.

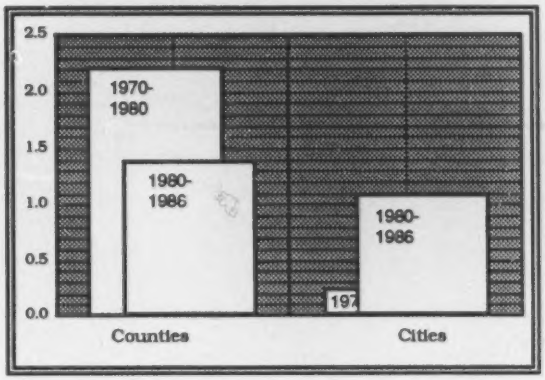
GEOGRAPHIC DIFFERENTIALS

Counties and Cities

During the 1970s, Virginia's counties grew much more rapidly than its independent cities. In fact, as Figure 4 shows, last decade's annual growth rate for counties averaged 2.2 percent, compared with only 0.2 percent for cities. Provisional 1986 population estimates indicate, however, that in the 1980s cities and counties are growing at nearly the same rate.

The relative importance of natural increase and net migration has also changed. During the

Figure 4. Average Annual Population Increase in Virginia's Counties and Cities, 1970-80 and 1980-86



1970s, cities experienced positive natural increase, but much of this gain was offset by net outmigration of about 10,200 persons per year. As a result, the slight growth that cities experienced between 1970 and 1980 was due entirely to natural increase, while counties had both positive natural increase and net migration.

During the 1980s, however, counties are growing more slowly, and cities are no longer losing population through outmigration. Between 1980 and 1986, annual net inmigration for cities has been 7,300 persons, compensating almost entirely for the losses which occurred during the 1970s. The reasons for this "urban upturn," a development which is taking place nationally, are not entirely clear. Of the two explanatory factors often mentioned, one is economic, one demographic. The economic explanation cites the post-1982 tendency for business and industrial expansion to take place in metropolitan areas rather than in the form of the small plant openings common in nonmetropolitan areas during the 1970s. The jobs thus created tend to attract migrants to metropolitan areas. The demographic explanation cites

changes in household size and composition. Because couples without children, single parents, unmarried, and the elderly tend to value proximity to urban services and amenities, current trends toward increasing rates of childlessness and marital dissolution, the tendency to marry at later ages or not at all, and growing numbers of older people all encourage urban inmigration. These two factors—the economic and demographic—are far from mutually exclusive, and it is likely that in most localities both are operating.

However, analyzing population trends along city-county lines can mask important differences within each category. Virginia's cities range in size from Emporia and Norton's 4,700 to Virginia Beach's 333,400, its counties from Highland's 2,800 to Fairfax's 710,500. Like Richmond, a locality may have a very large minority population, or like Clifton Forge, almost none. Nor are cities necessarily more urban than counties. In fact, some counties, such as Arlington County in Northern Virginia, are more highly urbanized than some cities, and some cities, such as Suffolk and Virginia Beach in southeastern Virginia, are less urban than some counties.

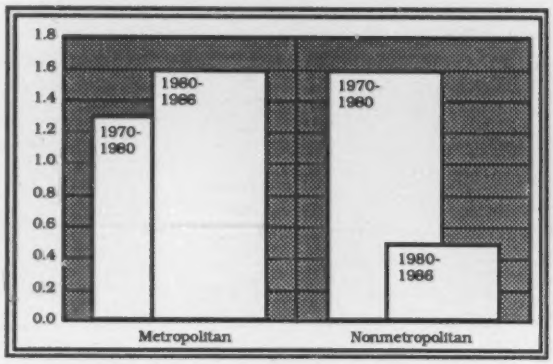
As a result, analyzing population change from the standpoint of the city-county dichotomy can mask other important kinds of differences, particularly those between metropolitan and nonmetropolitan areas.

Metropolitan and Nonmetropolitan Areas

Metropolitan Statistical Areas, or MSAs, are groups of economically and socially integrated counties and cities designated by the Office of Management and Budget. Six MSAs—including Charlottesville, Danville, Lynchburg, Norfolk-Virginia Beach-Newport News, Richmond-Petersburg, and Roanoke—lie wholly within Virginia's borders, as do portions of two others—Washington, D.C.-MD-VA and Johnson City-Kingsport-Bristol. A list of the counties and cities included in these MSAs is provided in Appendix B.

One of the most striking population trends to emerge during the first part of the 1980s is the difference in growth patterns between metropolitan and nonmetropolitan areas. Figure 5 shows how different these patterns are from those of the previous decade. During the 1970s, nonmetropolitan localities grew at a slightly faster rate than metropolitan localities. Since 1980, however, it is metropolitan localities that have grown faster; in fact, they are growing nearly three and a half times faster.

Figure 5. Average Annual Population Growth in Virginia's Metropolitan and Nonmetropolitan Areas, 1970-80 and 1980-86



Contributing to this turnaround is the decline in net inmigration to nonmetropolitan localities. During the 1970s, nonmetropolitan counties and cities had an average annual net inmigration of 17,400 persons, accounting for over 70 percent of the growth in these localities. But since 1980, this figure has fallen to only 2,300 persons per year, a decline of 87 percent. According to the most recent estimates, natural increase is now the dominant growth mechanism in nonmetropolitan localities, accounting for over 70 percent of the total population gain.

Moreover, metropolitan growth is not uniform but is concentrated in or adjacent to only four of the eight Metropolitan Statistical Areas. These four include the Charlottesville, Richmond-Petersburg, and Norfolk-Virginia Beach-Newport News MSAs, along with the Virginia portion of the Washington D.C.-MD-VA MSA. The Northern Virginia and Norfolk MSAs are the fastest growing, each with a growth rate of over 12 percent since 1980. The Charlottesville and Richmond-Petersburg MSAs are the next fastest growing metropolitan areas with increases

of 6.9 percent and 6.4 percent, respectively. The remaining four MSAs—Danville, Lynchburg, Roanoke, and the Virginia portion of Johnson City-Kingsport-Bristol—are experiencing either slow growth or small population declines.

Both metropolitan counties and cities have distinctly different growth patterns from their nonmetropolitan counterparts, and these growth patterns have changed over the years. Figure 6 shows these trends. During the 1970s, both metropolitan and nonmetropolitan counties had sizable average annual increases, growing by 2.5 percent and 1.8 percent, respectively. But the 1980-86 estimates show that while growth is continuing at a fairly rapid rate in metropolitan counties, growth in nonmetropolitan counties has dropped significantly. In fact, population in metropolitan counties is now increasing at four times the rate of nonmetropolitan counties.

Figure 6. Average Annual Population Growth in Virginia's Metropolitan and Nonmetropolitan Counties, 1970-80 and 1980-86

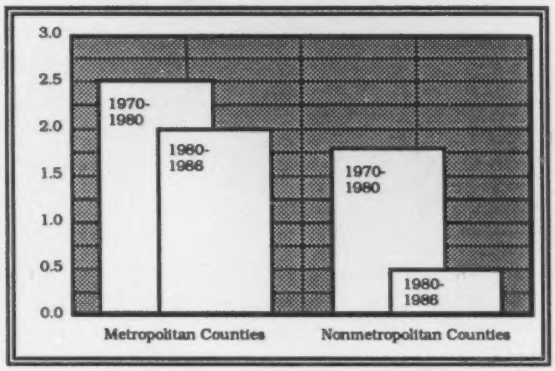


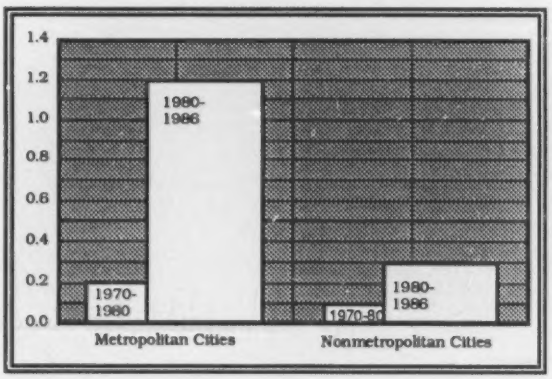
Figure 7 provides similar statistics for metropolitan and nonmetropolitan cities. The data show that both are contributing to the urban turnaround of the 1980s. Between 1970 and 1980, neither metropolitan nor nonmetropolitan cities were growing very rapidly. Between 1980 and 1986, however, the average annual growth rate for metropolitan cities has increased six-fold over the 1970-80 average, while the rate for nonmetropolitan cities is three times higher than in the previous decade.

Regions of the State

These differential rates produce the highly concentrated growth pattern shown in Figure 2. Since 1980, growth in Virginia has occurred mainly in the eastern third of the state, in an area extending from northern Virginia through parts of central Virginia to the Hampton Roads area. All of the localities experiencing large percentage gains in population—rates of ten percent or more—between 1980 and 1986, are located in this area, with the single exception of Bedford County, located in western Virginia. Moreover, although these 26 high-growth localities accounted for nearly 82 percent of the total population increase in the state, they contain only 16 percent of its total land area.

The majority of Virginia's localities grew much more slowly. Some of the counties and cities with small population gains of less than five percent between 1980 and 1986 are located in metropolitan areas and tend to be highly urbanized and densely settled jurisdictions. Others are between or on the outskirts of the moderate-to-high growth localities. Most, however, are in an area stretching from the northern Shenandoah Valley to Lee County in the far southwestern corner of the state and extending eastward into portions of Central and Southside Virginia. For the most part, these localities are predominantly rural with low overall population densities and little or no high-density residential development.

Figure 7. Average Annual Population Growth in Virginia's Metropolitan and Nonmetropolitan Cities, 1970-80 and 1980-86



In contrast, areas that lost population include both cities and counties. Four central cities—Richmond, Petersburg, Danville, and Bristol—failed to participate in the overall trend of metropolitan growth, as did two non-central cities—Fairfax City and Salem. Meanwhile, counties in which population is declining tend to be concentrated in three areas: along the western and southern borders of the state, in Southside, and along the Eastern Shore. These are generally rural localities which have had little new residential development and are not attracting significant amounts of new business and industry. In many cases, their unemployment rates are among the highest in the state.

Implications of Population Change

The pattern of population growth indicated by the most recent population estimates has important implications for Virginia as a whole as well as for individual localities. The pattern of 1980-86 growth evident in Figure 2 shows a state virtually divided into two parts, one of which is experiencing considerable population growth while the other grows slowly or not at all. While both growth and stability have advantages and disadvantages, a pattern as extreme as this usually means that the two areas have widely differing needs and attitudes that can be difficult to reconcile, particularly in a time of limited resources.

On the local level, population growth benefits business, creates jobs, and enhances the local tax base. However, growth also has its costs. Localities undergoing rapid development are also likely to be faced with a number of challenges—needing to improve roads, institute zoning ordinances, build new schools, and in general expand the level and range of services offered to residents as well as to business and industry. Particularly if growth has occurred in a relatively concentrated area, strain on natural resources—the water supply, for example—may accompany the need for a variety of capital and other improvements.

Population decline is also accompanied by challenges. Often it begins with a shortage of jobs, and the people who leave are frequently the young and the better-educated, who migrate in search of better opportunities elsewhere. Left behind is the population that requires the most in the way of social services—the elderly, the poor, the under-educated, and the chronically unemployed. Yet as business follows the population elsewhere, the tax base declines, and population-based allocation formulas reduce sources of outside funding. As a result, meeting the needs of these populations can indeed be a challenge.

Finally, many of Virginia's independent cities suffer the consequences of being, in effect, "landlocked"—surrounded by county territory and lacking physical space for expansion. For these localities, the only way to acquire such space is to annex portions of adjacent county land. Yet in many counties, it is precisely the land adjacent to city borders on which much of the county's business and industry is located. Thus the city's need for land conflicts with the county's need for tax revenue, and the annexation process becomes lengthy, conflict-ridden, and expensive for both localities.

In summary, the challenge for Virginia and each of its localities is to develop strategies for dealing with the consequences of population dynamics. Economic development initiatives, local zoning ordinances, alterations in the tax structure, and city-county revenue-sharing agreements are only some of the techniques that have been successful in adjusting to ever-changing population patterns.

ABOUT THE TABLES

The population estimates contained in this publication were developed in cooperation with the United States Bureau of the Census under the auspices of the Federal-State Cooperative Program for Population Estimates. The publication contains three tables. Table 1 gives the 1980 Census counts, final estimates for 1981 through 1985, and provisional estimates for 1986. Estimates are for each county and independent city, Metropolitan Statistical Area, and planning district, along with totals for counties, cities, metropolitan and nonmetropolitan areas, and the state as a whole. Table 2 contains numeric and percent change and net migration for the same areas.

Table 3 contains rankings based on the fig-

ures in Tables 1 and 2. In Table 3, each county and independent city is ranked on the basis of provisionally-estimated 1986 population, 1980 Census counts, 1980-86 percent change, and 1980-86 net migration rate. Each locality is ranked twice on each criterion. The first ranking compares counties with other counties, and cities with other cities. The second compares each locality with all others, regardless of type. For example, the first line in Table 3 indicates that the 1986 population estimate for Accomack ranked 30th out of 95 counties and 44th out of the 136 total localities (columns 1 and 2). These ranks have not changed since the 1980 Census (columns 3 and 4). However, Accomack's ranks on percent change and net migration are both lower than its rankings on size. In percent change it ranks 65th among all counties and 90th among all jurisdictions (columns 5 and 6), while its 1980-86 net migration rate ranks it 48th among counties and 62nd among all localities.

Users of the estimates should keep several points in mind:

1. Except for the Census population, all figures are rounded to the nearest hundred. However, the underlying calculations, for example, the sums for MSAs and planning districts, are based on unrounded numbers. As a result, the sum of the rounded estimates for constituent areas will often not be exactly the same as the rounded sum for the combined areas.

2. The MSA sums for all years reflect the jurisdictions that were assigned to the areas as of June, 1983, when the Office of Management and Budget made several changes to these assignments.

3. Estimates for the Johnson City-Kingsport-Bristol and Washington D.C.-MD-VA MSAs pertain only to the Virginia portions of those areas.

4. Census counts are adjusted for all post-census annexations and boundary changes. The number by which each count was adjusted, as well as other information about the changes, is included in the section on Boundary Changes and Annexations (see below).

5. The numbers in this publication are estimates produced by statistical methods that are described in Appendix B. According to 1980 tests, the average absolute error of the estimates in Virginia was between four and five percent. While we believe that the estimates are as accurate as we can make them, it should be kept in mind that each of the numbers is implicitly surrounded by an error range.

Since the 1980 Census was taken, there have been nine annexations or boundary changes in Virginia. The Census counts shown in the tables reflect adjustments made for these annexations. Information about each of the changes is contained in the following section.

BOUNDARY CHANGES AND ANNEXATIONS, 1980-86

The list below details all boundary changes and annexations between counties and independent cities that have occurred since the 1980 Census. Six items are listed for each change: (1) the localities involved; (2) the legally effective date of the change; (3) the estimated population involved on that date; (4) the estimated population in the transferred area on the Census date, April 1, 1980; (5) the Census population; and (6) the adjusted Census population based on the estimated population in the transferred area on the Census date. The first three items are obtained from the Decree of Annexation; the fourth and fifth and sixth are provided by the Bureau of the Census.

Census counts in all tables are adjusted for annexations or other boundary changes that have taken place since the Census date. Through 1983, the estimates were adjusted beginning with the year before the change became legal. For example, the Fredericksburg-Spotsylvania annexation was effective December 31, 1983. Consequently, the change is reflected in the 1982 and 1983 estimates for these localities, but not in the 1981 estimate.

However, beginning with the final 1984 estimates, annexations are reflected in the estimates that are issued for the year following

the effective date. For example, annexations which were effective December 31, 1985, are reflected in the 1986 provisional estimates. However, since we do not revise final estimates once they have been published, except in the case of a data error, all annexations and boundary changes effective prior to December 31, 1984, still reflect the back adjustments.

1. From Fairfax County to Fairfax City
   Effective date ..... December 31,1980
   Estimated population transferred 1,093
   Estimated equivalent Census population 1,147
   Census population
   Fairfax County 596,901
   Fairfax City 19,390
   Adjusted Census population
   Fairfax County 595,754
   Fairfax City 20,537

2. From Montgomery County to Radford City
   Effective date ..... December 31,1980
   Estimated population transferred 272
   Estimated equivalent Census population 231
   Census population
   Montgomery County 63,516
   Radford City 13,225
   Adjusted Census population
   Montgomery County 63,285
   Radford City 13,456

3. From Rockingham County to Harrisonburg City
   Effective date ..... December 31,1982
   Estimated population transferred 4,702
   Estimated equivalent Census population 4,984
   Census population
   Rockingham County 57,038
   Harrisonburg City 19,671
   Adjusted Census population
   Rockingham County 52,054
   Harrisonburg City 24,655

4. From Spotsylvania County to Fredericksburg City
   Effective date ..... December 31,1983
   Estimated population transferred 2,425
   Estimated equivalent Census population 2,440
   Census population
   SpotsylvaniaCounty 34,435
   Fredericksburg City 15,322
   Adjusted Census population
   Spotsylvania County 31,995
   Fredericksburg City 17,762

5. From James City County to Williamsburg City
   Effective date ..... December 31,1983
   Estimated population transferred 428
   Estimated equivalent Census population 424
   Census population
   James City County 22,763
   Williamsburg City 9,870
   Adjusted Census population
   James City County 22,339
   Williamsburg City 10,294

6. From Rockbridge County to Buena Vista City
   Effective date ..... December 31,1983
   Estimated population transferred 214
   Estimated equivalent Census population 187
   Census population
   Rockbridge County 17,911
   Buena Vista City 6,717
   Adjusted Census population
   Rockbridge County 17,724
   Buena Vista City 6,904

7. From Prince William County to Manassas City
   Effective date ..... December 31,1983
   Estimated population transferred 163
   Estimated equivalent Census population 67
   Census population
   Prince William County 144,703
   Manassas City 15,438

(Continued)

7. (Continued)
   Adjusted Census population
      Prince William County 144,636
      Manassas City 15,505

8. From Augusta County to
   Waynesboro City
   Effective date ..... December 31,1985
   Estimated population
   transferred 3,200
   Estimated equivalent Census
   population 3,234
   Census population
      Augusta County 53,732
      Waynesboro City 15,329
   Adjusted Census population
      Augusta County 50,498
      Waynesboro City 18,563

9. From Southampton County to
   Franklin City
   Effective date ..... December 31,1985
   Estimated population
   transferred 590
   Estimated equivalent Census
   population 415
   Census population
      Southampton County 18,731
      Franklin City 7,308
   Adjusted Census population
      Southampton County 18,316
      Franklin City 7,723

TABLE 1. POPULATION ESTIMATES FOR VIRGINIA LOCALITIES, 1981-1986

	July 1						April 1
	1986 (Provisional)	1985	1984	1983	1982	1981	1980 Census
State of Virginia	5,787,100	5,702,000	5,635,500	5,555,900	5,485,200	5,430,600	5,346,818
Counties							
Accomack	31,600	31,200	31,100	31,000	31,100	31,000	31,268
Albemarle	60,900	59,500	59,300	58,000	57,500	56,500	55,783
Alleghany	13,900	13,900	13,700	13,700	13,800	14,200	14,333
Amelia	8,500	8,400	8,300	8,200	8,200	8,300	8,405
Amherst	29,000	29,000	29,000	28,900	29,100	29,100	29,122
Appomattox	12,400	12,300	12,300	12,200	12,100	12,000	11,971
Arlington	158,700	157,400	157,000	154,000	153,200	152,900	152,599
Augusta	51,900	50,800	54,400	54,000	53,900	54,100	50,498
Bath	5,200	5,400	5,400	5,500	5,200	5,400	5,860
Bedford	39,300	38,400	37,400	36,600	36,200	35,700	34,927
Bland	6,400	6,500	6,400	6,500	6,500	6,500	6,349
Botetourt	24,700	24,300	23,900	23,700	23,500	23,600	23,270
Brunswick	16,000	16,000	16,100	16,200	15,700	15,500	15,632
Buchanan	35,800	36,700	37,300	38,100	38,200	38,000	37,989
Buckingham	12,300	12,400	12,300	11,900	11,500	11,800	11,751
Campbell	47,200	46,700	46,300	45,900	45,900	45,700	45,424
Caroline	19,000	18,800	18,900	18,400	18,300	17,900	17,904
Carroll	27,300	27,900	28,000	28,300	28,000	27,400	27,270
Charles City	6,500	6,600	6,700	6,600	6,700	6,700	6,692
Charlotte	11,800	11,900	11,900	11,900	12,000	12,100	12,266
Chesterfield	172,400	164,600	159,200	154,900	152,400	148,700	141,372
Clarke	10,300	10,200	10,100	10,000	10,100	9,900	9,965
Craig	4,200	4,100	4,100	3,900	3,900	3,900	3,948
Culpeper	24,300	23,800	23,300	22,900	22,800	22,800	22,620
Cumberland	7,900	7,900	8,000	7,800	7,800	7,900	7,881
Dickenson	19,800	20,000	20,100	20,300	20,200	19,900	19,806
Dinwiddie	21,100	21,000	21,100	21,500	22,000	22,400	22,602
Essex	8,900	8,900	8,900	8,700	8,700	8,800	8,864
Fairfax	710,500	690,300	673,900	651,700	639,200	618,600	595,754
Fauquier	42,000	40,300	38,900	38,300	37,500	36,600	35,889
Floyd	11,800	11,700	11,700	11,600	11,700	11,800	11,563
Fluvanna	10,700	10,700	10,500	10,400	10,300	10,300	10,244
Franklin	37,200	36,900	36,900	36,500	36,000	35,900	35,740
Frederick	36,900	36,000	35,400	35,200	35,100	34,400	34,150
Giles	17,600	17,700	17,700	17,700	17,700	17,800	17,810
Gloucester	28,300	26,400	24,500	23,200	22,100	21,000	20,107
Goochland	12,600	12,600	12,500	12,200	12,100	11,900	11,761
Grayson	16,600	16,600	16,500	16,700	16,700	16,700	16,579
Greene	8,700	8,500	8,300	8,100	8,000	7,800	7,625
Greensville	10,400	10,600	10,600	10,800	10,800	11,000	10,903

Table 1, page 2

	July 1						April 1
	1986 (Provisional)	1985	1984	1983	1982	1981	1980 Census
Halifax	29,900	29,900	29,900	29,900	30,000	30,300	30,599
Hanover	54,100	53,100	52,200	51,400	51,200	51,100	50,398
Henrico	195,500	194,100	191,600	188,900	186,000	184,000	180,735
Henry	56,200	56,700	56,400	56,100	56,500	57,100	57,654
Highland	2,800	2,900	3,000	2,800	2,700	2,700	2,937
Isle of Wight	24,100	23,700	23,000	22,500	22,000	22,000	21,603
James City	26,600	25,500	25,100	24,500	23,800	23,700	22,339
King and Queen	6,400	6,200	6,100	5,900	5,900	5,900	5,968
King George	12,000	11,500	11,100	10,800	10,700	10,600	10,543
King William	10,300	10,000	9,800	9,800	9,600	9,500	9,334
Lancaster	11,100	10,900	10,700	10,400	10,300	10,200	10,129
Lee	26,600	26,600	26,600	26,700	26,400	26,200	25,956
Loudoun	66,800	64,500	62,300	60,400	59,200	58,400	57,427
Louisa	19,100	18,900	18,800	18,400	18,200	18,000	17,825
Lunenburg	12,200	12,100	12,200	12,100	12,200	12,200	12,124
Madison	10,700	10,600	10,600	10,300	10,200	10,200	10,232
Mathews	8,800	8,600	8,500	8,400	8,300	8,100	7,995
Mecklenburg	29,800	29,800	29,700	29,300	29,100	29,100	29,444
Middlesex	8,700	8,500	8,200	8,000	7,900	7,800	7,719
Montgomery	66,100	65,100	64,800	64,800	64,700	64,200	63,285
Nelson	12,300	12,400	12,400	12,200	12,300	12,300	12,204
New Kent	10,400	10,100	9,800	9,400	9,200	9,000	8,781
Northampton	14,500	14,200	14,300	14,400	14,400	14,500	14,625
Northumberland	10,200	10,000	9,900	9,800	9,900	9,900	9,828
Nottoway	14,900	15,000	14,300	14,300	14,400	14,500	14,666
Orange	19,800	19,300	18,900	18,600	18,600	18,200	18,063
Page	20,000	19,800	19,700	19,400	19,400	19,300	19,401
Patrick	17,600	17,700	17,700	17,500	17,600	17,500	17,647
Pittsylvania	65,600	66,200	66,300	66,400	66,300	66,400	66,147
Powhatan	13,100	13,100	13,400	13,400	13,100	13,100	13,062
Prince Edward	17,400	17,200	16,900	16,500	16,700	16,800	16,456
Prince George	26,200	25,700	26,100	25,900	25,700	26,700	25,733
Prince William	175,400	169,700	164,100	159,200	156,700	152,300	144,636
Pulaski	34,200	34,800	34,900	35,000	35,300	35,300	35,229
Rappahannock	6,200	6,200	6,100	6,000	5,900	6,000	6,093
Richmond	7,200	7,000	7,000	6,900	7,000	6,900	6,952
Roanoke	74,500	73,500	73,400	73,500	73,800	73,900	72,945
Rockbridge	17,600	17,700	17,900	17,900	17,800	18,000	17,724
Rockingham	54,400	53,500	53,100	52,900	52,800	52,900	52,054
Russell	32,200	32,400	32,500	32,700	32,400	32,000	31,761
Scott	25,500	25,600	25,500	25,600	25,400	25,000	25,068
Shenandoah	28,200	28,100	27,900	27,800	27,700	27,700	27,559
Smyth	33,000	33,200	33,300	33,400	33,300	33,400	33,366

	July 1						April 1
	1986 (Provisional)	1985	1984	1983	1982	1981	1980 Census
Southampton	18,000	17,800	18,600	19,000	18,600	18,600	18,316
Spotsylvania	39,400	36,800	35,700	34,200	33,700	35,700	31,995
Stafford	50,100	49,000	47,100	45,400	44,100	42,100	40,470
Surry	6,300	6,200	6,300	6,100	6,100	6,100	6,046
Sussex	10,100	10,200	10,400	10,300	10,500	10,700	10,874
Tazewell	50,400	50,800	51,100	52,100	51,700	51,000	50,511
Warren	23,300	22,800	22,300	21,700	21,600	21,500	21,200
Washington	47,300	46,900	46,900	47,100	47,000	46,900	46,487
Westmoreland	14,400	14,300	14,200	14,000	14,000	14,100	14,041
Wise	44,800	45,100	45,000	45,000	44,500	44,000	43,863
Wythe	25,600	25,600	25,500	25,600	25,600	25,600	25,522
York	40,400	39,600	38,900	37,900	36,800	36,400	35,463
Cities							
Alexandria	107,800	108,500	107,600	105,300	104,500	105,200	103,217
Bedford	6,300	6,200	6,200	6,100	6,200	6,200	5,991
Bristol	18,000	18,100	18,200	18,700	18,800	18,700	19,042
Buena Vista	6,500	6,500	6,600	6,700	6,700	6,600	6,904
Charlottesville	41,100	41,000	40,700	40,600	40,400	40,300	39,916
Chesapeake	134,400	130,500	125,800	122,100	119,800	116,900	114,486
Clifton Forge	5,100	5,000	4,900	4,900	4,800	4,900	5,046
Colonial Heights	16,700	17,100	17,100	17,100	17,100	16,800	16,509
Covington	7,900	7,900	7,900	8,100	8,400	8,700	9,063
Danville	44,700	44,600	44,800	44,600	44,800	45,400	45,642
Emporia	4,700	4,700	4,800	4,800	4,900	4,900	4,840
Fairfax	19,900	20,400	20,500	20,600	20,400	20,700	20,537
Falls Church	9,700	9,500	9,500	9,500	9,400	9,500	9,515
Franklin	7,600	7,600	7,100	7,100	7,000	7,100	7,723
Fredericksburg	19,500	19,400	18,800	18,400	18,100	15,500	17,762
Galax	6,900	6,800	6,700	6,400	6,500	6,600	6,524
Hampton	126,000	125,300	125,900	126,100	125,000	123,700	122,617
Harrisonburg	27,000	26,400	26,000	25,400	25,500	25,200	24,655
Hopewell	24,100	24,300	24,000	24,100	24,100	23,800	23,397
Lexington	7,000	6,800	6,900	7,000	7,100	7,100	7,292
Lynchburg	68,000	68,300	67,300	67,300	67,400	67,200	66,743
Manassas	20,100	19,500	18,300	17,300	17,200	16,600	15,505
Manassas Park	7,100	7,000	6,700	6,300	6,400	6,500	6,524
Martinsville	18,700	18,500	18,400	18,300	18,200	18,200	18,149
Newport News	161,700	157,700	154,800	153,400	150,900	147,800	144,903
Norfolk	274,800	274,800	282,300	279,100	267,200	273,000	266,979
Norton	4,700	4,700	4,500	4,700	4,600	4,600	4,757
Petersburg	39,800	40,600	40,300	40,500	40,200	40,400	41,055
Poquoson	10,100	10,000	9,700	9,600	9,500	9,100	8,726
Portsmouth	111,000	110,500	109,300	106,800	105,900	104,400	104,577

	July 1						April 1
	1986 (Provisional)	1985	1984	1983	1982	1981	1980 Census
Radford	13,700	13,500	13,400	13,300	13,100	13,500	13,456
Richmond	217,700	217,500	218,200	220,300	218,600	218,100	219,214
Roanoke	101,900	101,000	100,600	100,500	100,400	100,200	100,220
Salem	23,700	24,100	24,100	24,000	24,000	23,900	23,958
South Boston	7,000	7,300	7,200	7,100	7,100	7,100	7,093
Staunton	21,500	21,600	21,700	22,200	22,100	21,900	21,857
Suffolk	51,300	50,200	49,000	48,100	47,500	47,200	47,621
Virginia Beach	333,400	318,300	307,800	296,200	283,000	273,600	262,199
Waynesboro	18,100	18,400	15,100	15,100	15,100	15,200	18,563
Williamsburg	11,400	11,300	10,800	10,700	10,500	10,100	10,294
Winchester	21,200	20,800	20,600	20,500	20,200	20,300	20,217
Planning Districts							
1 LENOWISCO	101,600	101,900	101,700	102,000	101,000	99,800	99,644
2 Cumberland Plateau	138,300	140,000	141,000	143,300	142,400	140,900	140,067
3 Mount Rogers	181,100	181,600	181,600	182,600	182,300	181,800	181,139
4 New River Valley	143,400	142,800	142,400	142,500	142,600	142,500	141,343
5 Fifth	256,000	253,700	252,600	252,300	252,600	253,300	252,783
6 Central Shenandoah	212,100	210,100	210,000	209,400	209,000	209,200	208,344
7 Lord Fairfax	139,900	137,700	136,000	134,600	134,100	133,100	132,492
8 Northern Virginia	1,276,100	1,246,900	1,219,800	1,184,400	1,166,200	1,140,700	1,105,714
9 Rappahannock-Rapidan	103,100	100,200	97,700	96,000	95,000	93,800	92,897
10 Thomas Jefferson	152,800	151,100	150,000	147,800	146,800	145,200	143,597
11 Central Virginia	202,100	201,000	198,500	197,100	196,900	196,000	194,178
12 West Piedmont	240,100	240,500	240,500	239,500	239,300	240,500	240,979
13 Southside	82,700	83,000	82,800	82,600	81,900	81,900	82,768
14 Piedmont	84,900	84,800	83,900	82,900	82,900	83,500	83,549
15 Richmond Regional	682,200	671,900	663,600	657,000	649,400	642,600	632,015
16 RADCO	140,100	135,500	131,600	127,300	124,900	121,800	118,674
17 Northern Neck	42,900	42,100	41,900	41,200	41,200	41,100	40,950
18 Middle Peninsula	71,300	68,500	66,000	64,000	62,500	61,200	59,987
19 Crater	159,400	160,300	160,600	161,100	161,500	162,800	161,959
20 Southeastern Virginia	954,600	933,500	922,800	901,000	870,900	862,900	843,504
21 Peninsula	376,300	369,500	365,200	362,100	356,500	350,800	344,342
22 Accomack-Northampton	46,100	45,400	45,400	45,400	45,400	45,500	45,893
Metropolitan Statistical Areas							
Bristol (Va. Portion)	90,800	90,600	90,700	91,300	91,200	90,600	90,597
Charlottesville	121,400	119,800	118,800	117,200	116,200	115,000	113,568
Danville	110,300	110,800	111,100	111,100	111,100	111,800	111,789
Lynchburg	144,200	144,000	142,600	142,100	142,400	142,000	141,289

	July 1						April 1
	1986 (Provisional)	1985	1984	1983	1982	1981	1980 Census
Norfolk	1,309,500	1,280,200	1,263,800	1,237,700	1,201,900	1,187,000	1,160,311
Northern Virginia	1,326,300	1,295,900	1,266,300	1,229,800	1,210,300	1,182,700	1,146,184
Richmond	810,200	800,600	792,100	786,100	778,500	772,700	761,311
Roanoke	224,900	222,900	221,900	221,600	221,700	221,600	220,393
Total Counties	3,609,000	3,549,748	3,505,400	3,451,000	3,416,700	3,377,900	3,313,530
Total Cities	2,178,200	2,152,215	2,130,100	2,104,900	2,068,500	2,052,700	2,033,288
Total Metropolitan	4,137,500	4,064,700	4,007,900	3,936,800	3,873,200	3,823,400	3,745,442
Total Nonmetropolitan	1,649,600	1,637,300	1,627,600	1,619,000	1,612,000	1,607,200	1,601,376

TABLE 2. COMPONENTS OF CHANGE FOR VIRGINIA LOCALITIES, 1980-1985 AND 1980-1986

	1980-86 (Provisional)				1980-85			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
State of Virginia	440,300	8.2	200,500	3.8	355,000	6.6	156,000	2.9
Counties								
Accomack	300	1.0	400	1.1	-100	-0.3	-100	-0.2
Albemarle	5,100	9.2	2,200	3.9	3,700	6.7	1,400	2.5
Alleghany	-500	-3.3	-800	-5.3	-400	-3.1	-700	-5.0
Amelia	100	1.1	-100	-1.1	-100	-0.7	-200	-2.5
Amherst	-100	-0.4	-900	-3.2	-100	-0.3	-800	-2.6
Appomattox	400	3.7	100	1.2	300	2.9	100	0.9
Arlington	6,100	4.0	-800	-0.5	4,800	3.1	-800	-0.5
Augusta	1,400	2.8	-100	-0.2	300	0.7	-900	-1.8
Bath	-600	-10.7	-700	-11.8	-500	-8.5	-600	-9.5
Bedford	4,400	12.6	3,300	9.4	3,500	9.9	2,500	7.3
Bland	—	0.5	-100	-1.2	100	1.7	—	0.1
Botetourt	1,400	6.2	1,100	4.6	1,000	4.4	700	3.1
Brunswick	300	2.1	100	0.9	400	2.5	200	1.5
Buchanan	-2,200	-5.7	-3,700	-19.8	-1,300	-3.3	-2,700	-7.0
Buckingham	500	4.5	300	2.8	600	5.3	500	3.9
Campbell	1,700	3.8	-100	-0.2	1,300	2.8	-300	-0.6
Caroline	1,100	6.0	400	2.2	900	5.2	400	2.0
Carroll	100	0.2	-100	-0.2	700	2.4	600	2.1
Charles City	-200	-3.4	-500	-8.0	-100	-1.1	-400	-5.4
Charlotte	-500	-4.1	-700	-5.6	-400	-3.3	-500	-4.5
Chesterfield	31,000	21.9	20,300	14.4	23,200	16.4	14,400	10.2
Clarke	300	3.2	200	1.8	200	2.2	100	1.0
Craig	200	5.7	200	5.0	200	4.4	200	4.1
Culpeper	1,700	7.4	900	4.1	1,200	5.4	600	2.6
Cumberland	—	-0.1	-100	-1.2	—	0.2	-100	-0.7
Dickenson	—	0.2	-500	-2.5	200	1.1	-300	-1.4
Dinwiddie	-1,500	-6.7	-1,900	-8.2	-1,600	-7.1	-1,900	-8.4
Essex	—	—	-200	-2.0	—	0.1	-100	-1.7
Fairfax	114,800	19.3	71,900	12.1	94,600	15.9	59,400	10.0
Fauquier	6,200	17.1	4,500	12.5	4,400	12.3	3,000	8.3
Floyd	200	1.6	100	0.9	100	1.2	—	0.3
Fluvanna	500	4.4	200	1.6	500	4.6	200	2.0
Franklin	1,500	4.1	800	2.2	1,100	3.1	500	1.4
Frederick	2,800	8.1	1,200	3.6	1,900	5.5	500	1.6
Giles	-200	-1.3	-400	-2.4	-200	-0.9	-300	-1.8
Gloucester	8,100	40.5	7,200	35.7	6,300	31.2	5,600	27.7
Goochland	900	7.3	600	4.7	800	7.2	600	5.0
Grayson	—	—	—	—	—	0.2	—	0.3
Greene	1,100	14.6	600	8.4	900	12.1	500	6.9

Table 2, page 2

	1980-86 (Provisional)				1980-85			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Greensville	-500	-4.7	-900	-7.9	-300	-3.2	-600	-5.9
Halifax	-700	-2.3	-1,200	-3.8	-700	-2.4	-1,100	-3.7
Hanover	3,700	7.3	2,000	3.9	2,700	5.4	1,300	2.6
Henrico	14,800	8.2	9,100	5.0	13,400	7.4	8,700	4.8
Henry	-1,400	-2.5	-3,100	-5.3	-900	-1.6	-2,300	-4.0
Highland	-100	-3.6	-100	-3.4	—	-1.5	-100	-1.7
Isle of Wight	2,500	11.5	1,600	7.5	2,100	9.9	1,500	6.8
James City	4,300	19.3	3,200	14.2	3,200	14.2	2,200	10.0
King and Queen	500	7.8	400	6.0	200	4.0	200	2.8
King George	1,500	14.2	1,000	9.1	1,000	9.0	500	4.6
King William	1,000	10.6	600	7.0	700	7.2	400	4.3
Lancaster	1,000	9.8	1,100	11.3	700	7.4	900	8.5
Lee	600	2.3	400	1.5	600	2.3	400	1.6
Loudoun	9,300	16.3	5,100	8.8	7,100	12.4	3,700	6.4
Louisa	1,300	7.2	900	4.5	1,100	6.2	700	3.9
Lunenburg	100	1.0	-100	-0.5	—	—	-100	-1.1
Madison	500	4.6	200	2.0	300	3.3	100	1.2
Mathews	800	10.2	1,000	12.1	600	7.7	800	9.5
Mecklenburg	300	1.1	100	0.4	400	1.2	200	0.6
Middlesex	900	12.1	1,000	13.1	700	9.5	800	10.6
Montgomery	2,900	4.5	600	0.9	1,800	2.9	-100	-0.2
Nelson	100	0.7	—	—	200	1.7	100	0.9
New Kent	1,600	17.9	1,100	12.8	1,400	15.4	1,000	11.4
Northampton	-100	-0.6	—	-0.2	-400	-2.6	-400	-2.5
Northumberland	300	3.3	500	5.6	100	1.5	300	3.2
Nottoway	200	1.3	200	1.5	300	2.2	300	2.2
Orange	1,700	9.6	1,300	7.4	1,200	6.8	900	4.9
Page	600	2.9	200	1.3	400	2.1	100	0.6
Patrick	-100	-0.5	-200	-1.3	—	0.2	-100	-0.6
Pittsylvania	-500	-0.8	-2,400	-3.6	—	—	-1,600	-2.4
Powhatan	100	0.5	-400	-2.9	100	0.7	-300	-2.3
Prince Edward	900	5.6	700	4.1	700	4.4	500	3.2
Prince George	500	2.0	-1,100	-4.4	-100	-0.2	-1,500	-5.8
Prince William	30,700	21.2	14,500	10.0	25,200	17.4	11,700	8.1
Pulaski	-1,000	-2.8	-1,600	-4.5	-400	-1.3	-1,000	-2.7
Rappahannock	100	2.3	100	0.9	100	1.8	—	0.6
Richmond	300	3.8	300	3.7	—	0.3	—	0.1
Roanoke	1,600	2.1	400	0.6	600	0.8	-400	-0.6
Rockbridge	-100	-0.6	-400	-2.3	—	—	-300	-1.6
Rockingham	2,400	4.5	200	0.4	1,500	2.9	-300	-0.6
Russell	400	1.3	-500	-1.5	700	2.1	-100	-0.4

Table 2, page 3

	1980-86 (Provisional)				1980-85			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Scott	400	1.8	300	1.2	500	1.9	300	1.4
Shenandoah	700	2.5	600	2.1	600	2.0	500	1.7
Smyth	-300	-1.0	-600	-1.9	-200	-0.6	-500	-1.6
Southampton	-300	-1.9	-700	-3.6	-500	-2.6	-700	-4.0
Spotsylvania	7,400	23.2	5,000	15.7	4,800	15.0	2,800	8.8
Stafford	9,600	23.8	7,000	17.3	8,500	21.1	6,300	15.7
Surry	200	4.1	100	1.1	200	2.8	—	-0.1
Sussex	-800	-7.1	-1,000	-9.2	-600	-5.9	-800	-7.5
Tazewell	-100	-0.2	-1,400	-2.9	300	0.6	-1,000	-1.9
Warren	2,100	10.1	1,500	7.2	1,600	7.4	1,100	5.0
Washington	800	1.7	200	0.5	400	1.0	-100	-0.1
Westmoreland	400	2.6	300	1.9	300	1.9	200	1.3
Wise	900	2.1	-800	-1.9	1,200	2.8	-300	-0.7
Wythe	100	0.3	-300	-1.1	100	0.2	-200	-0.8
York	5,000	14.0	4,000	11.3	4,200	11.7	3,400	9.5
Cities								
Alexandria	4,600	4.5	-100	-0.1	5,300	5.1	1,400	1.4
Bedford	300	4.4	500	8.8	200	3.8	500	7.8
Bristol	-1,000	-5.3	-900	-4.6	-900	-5.0	-900	-4.6
Buena Vista	-400	-6.4	-400	-6.4	-400	-5.6	-400	-5.7
Charlottesville	1,200	2.9	—	0.1	1,100	2.7	100	0.3
Chesapeake	19,900	17.4	12,300	10.7	16,000	14.0	9,700	8.5
Clifton Forge	100	1.5	200	4.5	-100	-1.7	—	0.5
Colonial Heights	200	0.9	-100	-0.8	600	3.3	300	1.9
Covington	-1,100	-12.4	-1,100	-11.8	-1,200	-13.0	-1,100	-12.5
Danville	-900	-2.0	-900	-1.9	-1,000	-2.2	-1,000	-2.3
Emporia	-200	-3.2	-100	-1.9	-100	-3.1	-100	-2.1
Fairfax	-600	-3.0	-1,900	-9.0	-100	-0.5	-1,200	-5.6
Falls Church	200	2.4	—	—	—	-0.3	-200	-2.3
Franklin	-100	-1.3	-300	-4.4	-200	-2.1	-400	-4.7
Fredericksburg	1,800	10.0	1,400	8.1	1,600	9.1	1,400	7.7
Galax	400	5.9	400	6.3	300	4.1	300	4.7
Hampton	3,400	2.8	-4,700	-3.9	2,700	2.2	-4,100	-3.4
Harrisonburg	2,400	9.7	2,100	8.4	1,700	6.9	1,500	5.9
Hopewell	700	3.1	-500	-2.1	900	3.7	-100	-0.5
Lexington	-300	-4.6	-200	-2.6	-500	-6.2	-300	-4.6
Lynchburg	1,200	1.8	400	0.5	1,600	2.4	900	1.4
Manassas	4,700	29.9	2,800	17.8	3,900	25.3	2,400	15.4
Manassas Park	600	9.5	-100	-0.8	500	7.3	-100	-1.2

	1980-86 (Provisional)				1980-85			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Martinsville	600	3.3	200	1.4	300	1.9	100	0.4
Newport News	16,800	11.6	5,400	3.7	12,800	8.8	3,300	2.3
Norfolk	7,900	2.9	-11,300	-4.2	7,800	2.9	-8,100	-3.0
Norton	-100	-1.3	-200	-3.9	-100	-1.7	-200	-3.8
Petersburg	-1,200	-3.0	-2,600	-6.2	-400	-1.0	-1,500	-3.7
Poquoson	1,400	16.3	1,100	12.8	1,300	15.0	1,100	12.1
Portsmouth	6,400	6.1	1,000	0.9	5,900	5.7	1,300	1.3
Radford	300	1.9	100	0.8	100	0.6	—	-0.1
Richmond	-1,500	-0.7	-6,500	-3.0	-1,700	-0.8	-5,800	-2.6
Roanoke	1,700	1.7	500	0.5	800	0.8	-300	-0.2
Salem	-200	-0.9	-300	-1.3	100	0.5	—	—
South Boston	-100	-0.8	-100	-1.0	200	2.3	100	2.0
Staunton	-300	-1.5	-300	-1.6	-200	-1.1	-300	-1.3
Suffolk	3,700	7.8	2,300	4.9	2,600	5.4	1,400	3.0
Virginia Beach	71,200	27.2	46,700	17.8	56,100	21.4	36,300	13.8
Waynesboro	-500	-2.7	-900	-4.6	-100	-0.8	-500	-2.6
Williamsburg	1,100	10.3	600	6.2	1,000	9.7	700	6.6
Winchester	1,000	4.7	800	4.1	600	2.9	500	2.4
Planning Districts								
1 LENOWISCO	1,900	1.9	-300	-0.3	2,200	2.2	300	0.3
2 Cumberland Plateau	-1,800	-1.3	-6,100	-4.4	-100	-0.1	-4,000	-2.9
3 Mount Rogers	—	—	-1,300	-0.7	400	0.2	-800	-0.4
4 New River Valley	2,100	1.5	-1,200	-0.9	1,400	1.0	-1,400	-1.0
5 Fifth	3,200	1.3	200	0.1	900	0.4	-1,600	-0.6
6 Central Shenandoah	3,700	1.8	-800	-0.4	1,800	0.9	-2,200	-1.0
7 Lord Fairfax	7,400	5.6	4,600	3.5	5,200	3.9	2,800	2.1
8 Northern Virginia	170,400	15.4	91,500	8.3	141,200	12.8	76,300	6.9
9 Rappahannock-Rapidan	10,200	10.9	7,000	7.5	7,300	7.9	4,600	5.0
10 Thomas Jefferson	9,200	6.4	3,900	2.7	7,500	5.2	3,000	2.1
11 Central Virginia	8,000	4.1	3,300	1.7	6,800	3.5	3,000	1.6
12 West Piedmont	-900	-0.4	-5,500	-2.3	-400	-0.2	-4,500	-1.9
13 Southside	-100	-0.1	-1,000	-1.2	200	0.2	-600	-0.7
14 Piedmont	1,300	1.6	300	0.4	1,200	1.5	400	0.4
15 Richmond Regional	50,200	7.9	25,700	4.1	39,900	6.3	19,600	3.1
16 RADCO	21,400	18.0	14,800	12.5	16,800	14.2	11,400	9.6
17 Northern Neck	2,000	4.8	2,200	5.4	1,200	2.9	1,400	3.4
18 Middle Peninsula	11,300	18.9	10,000	16.6	8,500	14.2	7,600	12.6
19 Crater	-2,500	-1.6	-8,100	-5.0	-1,600	-1.0	-6,300	-3.9
20 Southeastern Virginia	111,100	13.2	51,600	6.1	90,000	10.7	41,100	4.9
21 Peninsula	32,000	9.3	9,600	2.8	25,100	7.3	6,500	1.9
22 Accomack-Northampton	200	0.5	300	0.7	-500	-1.0	-400	-1.0

	1980-86 (Provisional)				1980-85			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Metropolitan Statistical Areas								
Bristol (Va. Portion)	200	0.2	-400	-0.4	—	—	-600	-0.6
Charlottesville	7,800	6.9	3,000	2.7	6,200	5.5	2,200	2.0
Danville	-1,400	-1.3	-3,300	-2.9	-1,000	-0.9	-2,600	-2.4
Lynchburg	2,900	2.0	-700	-0.5	2,800	2.0	-100	-0.1
Norfolk	149,100	12.9	67,800	5.8	119,900	10.3	52,700	4.5
Northern Virginia	180,100	15.7	98,500	8.6	149,700	13.1	82,700	7.2
Richmond	48,900	6.4	19,500	2.6	39,200	5.2	14,900	2.0
Roanoke	4,500	2.0	1,600	0.7	2,500	1.1	—	—
Total Counties	295,400	8.9	155,000	4.7	236,200	7.1	119,400	3.6
Total Cities	144,900	7.1	45,500	2.2	118,900	5.9	36,700	1.8
Total Metropolitan	392,000	10.5	186,100	5.0	319,200	8.5	149,200	4.0
Total Nonmetropolitan	48,300	3.0	14,400	0.9	35,900	2.2	6,900	0.4

TABLE 3. RANKINGS BY ESTIMATES, CENSUS COUNTS, CHANGE, AND NET MIGRATION RATES

	Provisional Estimate 1986		Census 1980		Percent Change 1980-86		Net Migration Rate 1980-86	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Counties								
Accomack	30	44	30	44	65	90	48	62
Albemarle	10	20	11	21	22	31	31	43
Alleghany	62	88	61	87	87	124	88	125
Amelia	85	115	82	113	63	88	67	91
Amherst	33	47	33	47	76	102	80	111
Appomattox	65	92	67	94	44	59	47	61
Arlington	5	9	3	6	41	56	65	86
Augusta	14	24	14	24	48	67	60	81
Bath	93	131	93	131	95	135	95	135
Bedford	23	37	25	39	14	18	14	18
Bland	90	127	89	126	68	94	69	93
Botetourt	42	57	40	57	30	40	27	37
Brunswick	58	84	58	83	55	76	50	65
Buchanan	26	40	20	34	92	131	94	134
Buckingham	67	94	69	96	35	48	35	48
Campbell	18	29	17	29	42	57	62	83
Caroline	51	73	51	74	31	42	36	49
Carroll	36	50	35	49	70	96	61	82
Charles City	88	124	88	123	88	125	91	130
Charlotte	70	97	64	91	90	127	89	126
Chesterfield	4	7	5	9	4	6	4	6
Clarke	78	106	77	105	46	62	41	54
Craig	94	135	94	135	32	44	24	33
Culpeper	43	58	41	58	26	36	29	40
Cumberland	86	117	84	115	74	100	68	92
Dickenson	48	69	47	67	71	97	77	106
Dinwiddie	46	65	42	59	93	133	92	131
Essex	81	111	80	110	73	99	74	102
Fairfax	1	1	1	1	6	8	10	13
Fauquier	20	32	21	35	9	12	8	11
Floyd	71	98	70	97	59	83	52	67
Fluvanna	74	102	74	102	38	52	42	55
Franklin	24	38	22	36	39	54	37	50
Frederick	25	39	26	40	24	33	34	47
Giles	54	79	53	76	82	111	76	105
Gloucester	34	48	46	66	1	1	1	1
Goochland	64	91	68	95	27	37	26	36
Grayson	57	83	56	80	72	98	58	77
Greene	83	113	86	118	11	15	17	23
Greensville	75	103	71	98	91	129	90	129
Halifax	31	45	31	45	84	117	84	115
Hanover	13	23	15	25	28	38	32	44
Henrico	2	5	2	5	23	32	25	34

Table 3, page 2

	Provisional Estimate 1986		Census 1980		Percent Change 1980-86		Net Migration Rate 1980-86	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Henry	11	21	9	19	85	118	87	124
Highland	95	136	95	135	89	126	81	112
Isle of Wight	44	60	44	62	16	21	18	25
James City	37	52	43	60	7	9	5	7
King and Queen	89	126	92	130	25	34	22	31
King George	69	96	73	100	12	16	15	19
King William	77	105	79	108	17	22	21	28
Lancaster	72	100	76	104	20	27	12	15
Lee	38	53	36	50	51	72	44	57
Loudoun	7	17	10	20	10	14	16	21
Louisa	50	72	52	75	29	39	28	38
Lunenburg	68	95	66	93	64	89	64	85
Madison	73	101	75	103	34	47	39	52
Mathews	82	112	83	114	18	24	9	12
Mecklenburg	32	46	32	46	62	87	56	74
Middlesex	84	114	85	117	15	19	6	8
Montgomery	8	18	8	18	37	50	53	68
Nelson	66	93	65	92	66	92	59	78
New Kent	76	104	81	111	8	10	7	10
Northampton	60	86	60	86	79	105	63	84
Northumberland	79	107	78	106	45	60	23	32
Nottoway	59	85	59	85	61	86	43	56
Orange	49	70	50	73	21	29	19	26
Page	47	67	48	68	47	65	45	59
Patrick	55	80	55	79	77	103	70	94
Pittsylvania	9	19	7	17	80	108	83	114
Powhatan	63	90	63	90	67	93	79	109
Prince Edward	56	81	57	82	33	45	30	42
Prince George	39	54	37	51	56	77	85	120
Prince William	3	6	4	8	5	7	13	17
Pulaski	27	41	24	38	86	120	86	121
Rappahannock	92	130	90	127	52	73	51	66
Richmond	87	119	87	121	43	58	33	45
Roanoke	6	15	6	15	53	74	54	70
Rockbridge	53	78	54	78	78	104	75	104
Rockingham	12	22	12	22	36	49	57	75
Russell	29	43	29	43	60	85	71	96
Scott	41	56	39	53	57	80	46	60
Shenandoah	35	49	34	48	50	70	38	51
Smyth	28	42	27	41	81	110	73	101
Southampton	52	77	49	71	83	115	82	113
Spotsylvania	22	36	28	42	3	5	3	5
Stafford	16	27	19	32	2	4	2	4
Surry	91	128	91	128	40	55	49	63

	Provisional Estimate 1986		Census 1980		Percent Change 1980-86		Net Migration Rate 1980-86	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Sussex	80	109	72	99	94	134	93	133
Tazewell	15	26	13	23	75	101	78	108
Warren	45	62	45	63	19	25	20	27
Washington	17	28	16	27	58	82	55	72
Westmoreland	61	87	62	88	49	69	40	53
Wise	19	30	18	30	54	75	72	98
Wythe	40	55	38	52	69	95	66	90
York	21	34	23	37	13	17	11	14
Cities								
Alexandria	8	13	8	13	14	51	21	80
Bedford	38	129	38	129	15	53	5	20
Bristol	25	76	21	69	39	130	37	123
Buena Vista	37	125	35	122	40	132	39	128
Charlottesville	13	33	14	33	19	66	19	76
Chesapeake	5	10	6	11	3	11	4	16
Clifton Forge	39	132	39	132	25	84	11	39
Colonial Heights	26	82	25	81	26	91	22	87
Covington	31	116	30	109	41	136	41	136
Danville	12	31	12	28	33	116	27	99
Emporia	41	134	40	133	37	123	28	100
Fairfax	21	68	19	64	36	122	40	132
Falls Church	30	110	29	107	21	71	20	79
Franklin	32	118	32	116	30	112	35	119
Fredericksburg	22	71	24	77	7	26	7	24
Galax	36	123	36	124	12	43	8	29
Hampton	6	11	5	10	20	68	32	116
Harrisonburg	15	51	15	54	8	28	6	22
Hopewell	16	59	17	56	17	63	29	103
Lexington	35	122	33	119	38	128	30	107
Lynchburg	10	16	10	16	23	79	17	71
Manassas	20	66	26	84	1	2	1	2
Manassas Park	33	120	37	125	9	30	23	88
Martinsville	23	74	23	72	16	61	14	58
Newport News	4	8	4	7	5	20	13	46
Norfolk	2	3	1	2	18	64	34	118
Norton	40	133	41	134	31	113	33	117
Petersburg	14	35	13	31	35	121	38	127
Poquoson	29	108	31	112	4	13	3	9
Portsmouth	7	12	7	12	11	41	15	64
Radford	27	89	27	89	22	78	16	69
Richmond	3	4	3	4	27	106	31	110
Roanoke	9	14	9	14	24	81	18	73
Salem	17	61	16	55	29	109	25	95

Table 3, page 4

	Provisional Estimate 1986		Census 1980		Percent Change 1980-86		Net Migration Rate 1980-86	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
South Boston	34	121	34	120	28	107	24	89
Staunton	18	63	18	61	32	114	26	97
Suffolk	11	25	11	26	10	35	10	35
Virginia Beach	1	2	2	3	2	3	2	3
Waynesboro	24	75	22	70	34	119	36	122
Williamsburg	28	99	28	101	6	23	9	30
Winchester	19	64	20	65	13	46	12	41

APPENDIX A
PLANNING DISTRICTS IN VIRGINIA

1. LENOWISCO
   - Lee County
   - Scott County
   - Wise County
   - Norton City

2. Cumberland Plateau
   - Buchanan County
   - Dickenson County
   - Russell County
   - Tazewell County

3. Mount Rogers
   - Bland County
   - Carroll County
   - Grayson County
   - Smyth County
   - Washington County
   - Wythe County
   - Bristol City
   - Galax City

4. New River Valley
   - Floyd County
   - Giles County
   - Montgomery County
   - Pulaski County
   - Radford City

5. Fifth
   - Alleghany County
   - Botetourt County
   - Craig County
   - Roanoke County
   - Clifton Forge City
   - Covington City
   - Roanoke City
   - Salem City

6. Central Shenandoah
   - Augusta County
   - Bath County
   - Highland County
   - Rockbridge County
   - Rockingham County
   - Buena Vista City
   - Harrisonburg City
   - Lexington City
   - Staunton City
   - Waynesboro City

7. Lord Fairfax
   - Clarke County
   - Frederick County
   - Page County
   - Shenandoah County
   - Warren County
   - Winchester City

8. Northern Virginia
   - Arlington County
   - Fairfax County
   - Loudoun County
   - Prince William County
   - Alexandria City
   - Fairfax City
   - Falls Church City
   - Manassas City
   - Manassas Park City

9. Rappahannock-Rapidan
   - Culpeper County
   - Fauquier County
   - Madison County
   - Orange County
   - Rappahannock County

10. Thomas Jefferson
    - Albemarle County
    - Fluvanna County
    - Greene County
    - Louisa County
    - Nelson County
    - Charlottesville City

11. Central Virginia
    - Amherst County
    - Appomattox County
    - Bedford County
    - Campbell County
    - Bedford City
    - Lynchburg City

12. West Piedmont
    - Franklin County
    - Henry County
    - Patrick County
    - Pittsylvania County
    - Danville City
    - Martinsville City

13. Southside
    - BrunswickCounty
    - HalifaxCounty
    - MecklenburgCounty
    - South Boston City

14. Piedmont
    - Amelia County
    - Buckingham County
    - Charlotte County
    - Cumberland County
    - Lunenburg County
    - Nottoway County
    - Prince Edward County

15. Richmond Regional
    - Charles City County
    - Chesterfield County
    - Goochland County
    - Hanover County
    - Henrico County
    - New Kent County
    - Powhatan County
    - Richmond City

16. RADCO
    - Caroline County
    - King George County
    - Spotsylvania County
    - Stafford County
    - Fredericksburg City

17. Northern Neck
    - Lancaster County
    - Northumberland County
    - Richmond County
    - Westmoreland County

18. Middle Peninsula
    - Essex County
    - Gloucester County
    - King and Queen County
    - King William County
    - Mathews County
    - Middlesex County

19. Crater
    - Dinwiddie County
    - Greensville County

(continued)

19. Crater (continued)

Prince George County
Surry County
Sussex County
Colonial Heights City
Emporia City
Hopewell City
Petersburg City

20. Southeastern Virginia
Isle of Wight County
Southampton County
Chesapeake City
Franklin City
Norfolk City
Portsmouth City
Suffolk City
Virginia Beach City

21. Peninsula
James City County
York County
Hampton City
Newport News City
Poquoson City
Williamsburg City

22. Accomack-Northampton
Accomack County
Northampton County

APPENDIX B
METROPLITAN STATISTICAL AREAS IN VIRGINIA

(Note: asterisk denotes a central city)

Charlottesville
Albemarle County
Fluvanna County
Greene County
Charlottesville City*

Danville
Pittsylvania County
Danville City*

Johnson City-Kingsport-Bristol (Virginia portion)
Scott County
Washington County
Bristol City*

Lynchburg
Amherst County
Campbell County
Lynchburg City*

Norfolk-Virginia Beach-Newport News
Gloucester County
James City County
York County
Chesapeake City
Hampton City*
Newport News City*
Norfolk City*
Poquoson City
Portsmouth City*
Suffolk City*
Virginia Beach City*
Williamsburg City

Richmond-Petersburg
Charles City County
Chesterfield County
Dinwiddie County
Goochland County
Hanover County
Henrico County
New Kent County
Powhatan County
Prince George County

Richmond-Petersburg (continued)
Colonial Heights City
Hopewell City
Petersburg City*
Richmond City*

Roanoke
Botetourt County
Roanoke County
Roanoke City*
Salem City

Washington D.C.-MD-VA (Virginia portion)
Arlington County*
Fairfax County
Loudoun County
Prince William County
Stafford County
Alexandria City
Fairfax City
Falls Church City
Manassas City
Manassas Park City

APPENDIX C. METHODOLOGY

The estimates presented in this publication are an average of those produced by two separate methods, ratio-correlation and administrative records. This appendix contains brief descriptions of the input data used, each of the methods, the procedure used in averaging the results, and the difference between final and provisional estimates.

Input Data

Input data for each jurisdiction include:

1. The number of federal tax returns filed in the estimating year. These data are obtained from the Bureau of the Census and are not available for release.

2. The number of state tax returns filed in the estimating year, obtained from the Virginia Department of Taxation.

3. Births and deaths by race in the estimating year, obtained from the Virginia Department of Health.

4. The sum of public and nonpublic school enrollment in grades 1-8 in October of the year preceding the estimating year. Public school figures are obtained from the report entitled "Fall Membership in Virginia's Public Schools," issued annually by the Virginia Department of Education. Nonpublic school figures are obtained from an annual survey of these institutions conducted by the Center for Public Service and are on the basis of residence. These figures are available for release only on the aggregate level and only where the number of schools drawing students from an area is sufficiently large so that no school's enrollment figures can be derived.

5. Medicare enrollment for the estimating year. The 1980 Census indicated that in many counties adjacent to or surrounding independent cities, this data series contained errors traceable to address coding. Consequently, data for these areas are adjusted to compensate for these errors. Medicare data are obtained from the Bureau of the Census, which in turn obtains the series from the Social Security Administration. The data are administratively restricted until released by the SSA.

6. The number of persons residing in military barracks and on non-deployed ships. These data are obtained from the Bureau of the Census, which in turn receives them from the Department of Defense. By special permission of the Department of Defense, they are available for release only to local planning district staff and officials.

7. The number of persons permanently or quasi-permanently residing in institutions with populations of approximately 50 or more. These data are obtained from a variety of sources, including the Virginia Department of Corrections, the Virginia Department of Mental Health, and the institutions themselves. Included are long-term health care facilities, long-term correctional institutions, and residents of college and university dormitories. Nursing homes are not included because their residents are usually represented by other data, particularly Medicare enrollment.

The Ratio-Correlation Method

The ratio-correlation method uses a prediction equation generated by regression analysis, a statistical technique which measures the relationship between one or more indicator variables and a dependent variable. For use in estimating the population, a new equation is generated once every ten years, using Census population as the dependent variable. This equation takes the form

$$\text{Estimated } Y = + b1(X1) + \ldots + bn(Xn) + C$$

where each b is a regression coefficient, each X is an indicator variable, C is the constant, and Estimated Y is the dependent variable. For Virginia, the current coefficients and indicator variables are:

Federal tax returns filed in the estimating year	0.051
State tax returns filed in the estimating year	0.278

Births by residence in the estimating and two preceding years 0.117

Public and nonpublic school enrollment in grades 1-8 in the fall preceding the estimating year 0.413

Constant 0.127

These variables are used in the equation in a double ratio form, in which each locality's share of the state total in the estimating year is compared to its share of the state total in the base year (the year in which the equation was developed). For example, in producing an estimate for 1986, the form of the school enrollment indicator is:

$$\frac{\frac{\text{Locality school enrollment, fall, 1985}}{\text{State school enrollment, fall 1985}}}{\frac{\text{Locality school enrollment, fall 1979}}{\text{State school enrollment, fall 1979}}}$$

After multiplying each of these double ratios by its coefficient and adding the constant, mathematical adjustments are made to allow for the time elapsed between the base year and the estimating year. The resulting estimate is not a population figure; rather it is the percentage of the state's total noninstitutional population that will be allocated to the locality. These percentages are adjusted to equal 100.0, and the adjusted percentage is multiplied by the state total. The final step is to add institutional populations to obtain an estimate of the total population.

It is important to realize that ratio-correlation does not involve a one-to-one correspondence between each indicator variable and the population estimate. That is, a coefficient of 0.413 in no sense indicates that for every student in grades 1-8, 0.413 of a person will be added to the estimate. Similarly, although it may seem that each person in the institutional population constitutes one person in the estimate, this is not the case. Because the equation is derived using the base year noninstitutional population, the amount of change in the institutional population between the base and estimating years is actually more important than the numbers themselves.

The Administrative Records Method

The administrative records method uses births and deaths by race to estimate natural increase between 1980 and the estimating year for each locality. A matrix of federal tax return data is then used to estimate net migration, and together these elements produce an estimate of the non-group quarters population under the age of 65. Adjusted Medicare enrollment is then used to estimate the population 65 and over, and institutional and barracks populations are added to produce a total population estimate. Since the federal tax return data used in producing the net migration estimates are confidential, this method is calculated at the Bureau of the Census.

The Sumest Procedure

The sumest procedure averages and adjusts the ratio-correlation and administrative records estimates. In this procedure, the administrative records estimates are adjusted to equal the state estimate produced independently by the Bureau of the Census. (This adjustment is not needed for ratio-correlation, since adjusting the percentages to equal 100.0 has already performed this function.) The results of each method are then further adjusted for any special censuses that have taken place. The two estimates are then averaged, and if necessary, a very small adjustment is performed to adjust one final time to the state total.

Provisional vs. Final Estimates

The differences between the provisional and final estimates for a given year are produced by differences in the input data and the population total for the state. Normally, at the time the estimates are being generated, final figures for births, deaths, and Medicare enrollment are not available for the provisional estimate. Therefore, these quantities must themselves be estimated. For similar reasons, the Bureau of the Census produces a population estimate for the state that will, in all likelihood, be revised a year later. Consequently, although the provisional estimates are more timely than the final estimates, they are also less accurate.

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